AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method, for virtually concatenating optical channels in WDM networks, ~~the method~~ comprising ~~the steps of~~:

providing for a plurality of frames, each frame comprising a byte reserved for a concatenation flag;

writing the same value defined in advance into the n-frame (n=1,2,3,...) concatenation byte; and

transmitting the n frames through n respective channels.

2. (currently amended): A method, for receiving a number n of virtually concatenated signal frames in WDM networks, ~~the method~~ comprising ~~the steps of~~:

receiving a first reference frame at an instant t_o;

reading the concatenation byte value of such reference frame;

receiving the remaining n-1 signal frames after a respective determined time t;

reading the concatenation byte value of the remaining n-1 signal frames; and

identifying and aligning all the signal frames with the same concatenation byte value compensating for the receiving time t.

3. (currently amended): A method according to claim 2, wherein the ~~step of~~ aligning of all the signal frames with the same concatenation byte value comprises ~~the steps of~~:

receiving the remaining n-1 signal frames at corresponding instants t_1;

calculating, for each of the remaining n-1 frames, the time t elapsed from the instant at which the reference frame has been received;

providing, for every channel, an elastic store; and

holding steady the elastic storage of the reference channel and moving the others in dependence of the calculated times t.

4. (currently amended): A method according to claim 2, wherein the ~~step of~~ receiving of the remaining n-1 signal frames ~~after a respective determined time t~~ comprises ~~the steps of~~:

reading the frame alignment word of the reference frame at a first instant t_o;

reading the frame alignment word of the remaining n-1 frames at corresponding second instants t_1; and

calculating the time differences t between the first instant t_o and the corresponding second instants t1.

5. (currently amended): A method according to claim 2, further comprising~~wherein the additional step is provided of~~:

calculating the possible differences between the concatenation byte value of the reference frame and the concatenation byte value of the remaining n-1 frames,

multiplying ~~such~~ said possible differences by the frame period T_1 and

adding the value obtained to the respective time differences t.

6. (original): An apparatus for virtually concatenating optical channels in WDM networks, the apparatus comprising:

a first circuit for writing the same predetermined value into the concatenation byte of n-signal frames (n=1,2,3,...) : and

a transmitter of the n frames through n respective channels.

7. (original): An apparatus for receiving a number n of signal frames virtually concatenated in WDM networks, the apparatus comprising:

a first receiver of a first reference frame at an instant t_o;

a first circuit for reading the concatenation byte value of such reference frame;

a second receiver of the remaining n-1 signal frames after a respective determined time t;

a second circuit for reading the concatenation byte value of the remaining n-1 frames; and

a circuit for identifying and aligning all the signal frames with the same concatenation byte value compensating for the receiving times t.

8. (original): A WDM network comprising circuits for the implementation of the method for virtually concatenating optical channels of claim 1.

9. (original): A WDM network comprising circuits for the implementation of the method for receiving a number n of virtually concatenated signal frames of claim 2.

10. (original): A WDM network comprising an apparatus for virtually concatenating optical channels as in claim 6.

11. (original): WDM network comprising an apparatus for receiving a number n of virtually concatenated signal frames as in claim 7.